Health Care Use & POLICY STUDIES – Equity and Access

PHP12

THE RATIO OF PUBLIC REIMBURSEMENT AND PATIENTS' CO-PAYMENT IN THE FINANCING OF SPA SERVICES IN HUNGARY

Turcsanyi K[1], Domján P[1], Boncz I[2]
[1]*University of Pécs, Zalaegerszeg, Hungary,* [2]*University of Pécs, Pécs, Hungary*

OBJECTIVES: Hungary has long and strong traditions in providing spa services. The reimbursement of spa services includes both public health insurance scheme and patient co-payment. The aim of our study is to explore the ratio of public reimbursement and patients' co-payment in financing of spa services in Hungary. **METHODS:** Data were derived from the nationwide administrative dataset of the National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary covering the year 2007. We calculated within the total spa spending the annual health insurance reimbursement and the patients' co-payment at county and regional level. Hunmgary is devided into 7 regions and 20 counties. **RESULTS:** On nationwide level, the average ratio of patients' co-payment was 28.0 %, while the remaining 72.0 % was reimbursed by the National Health Insurance Fund Administration (OEP). At regional level, the ratio of patients' co-payment varied between 22.7 % (in the Northern-Great Plane region) and 35.4 % (in the Western-Transdanubian region). At county level, we found the lowest ratio of patients' co-payment in county Csongrád (19.8 %), Hajdú-Bihar (21.3 %) and Békés (23.1 %), while the highest ratio of patients' co-payment was observed in county Zala (53.4 %), Veszprém (46.6 %) and Somogy (33.3 %). **CONCLUSIONS:** In financing of spa services in Hungary, patient co-payment has a significant role: 28.0 % of total expenditures. There are important inequalities in the ratio of patient co-payment at both regional and county level.

PHP13

GEOGRAPHICAL INEQUALITIES OF HOME CARE (NURSING) IN HUNGARY

Cs. Horváth Z[1], Molics B[1], Ágoston I[1], Sebestyén A[2], Boncz I[1]
[1]*University of Pécs, Pécs, Hungary,* [2]*South-Trasdanubian Regional Health Insurance Fund Administration, Pécs, Hungary*

OBJECTIVES: Home care (nursing) was introduced into the Hungarian basic health insurance package in 1996. The aim of our study is to analyze the geographical inequalities in home care (nursing) in Hungary. **METHODS:** Data were derived from the nationwide administrative dataset of the National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary. The utilization of home care (nursing) services was measured by the number of patients and the number of visits. The geographical inequalities were calculated for county level. Both indicator was calculated to 10.000 population. **RESULTS:** The average number of patients in the Hungarian home care system was 50 / 10.000 population. We found the highest utilization in the following counties: Zala (65), Baranya (65), Jász-Nagykun-Szolnok (64), Vas (59), Csongrád (54), Borsod-Abaúj-Zemplén (54) and Győr-Moson-Sopron counties. The lowest utilization rate was measured in Komárom-Esztergom (43), Fejér (43), Nőgrád (38) and Szabolcs-Szatmár-Bereg (26) counties (all are for 10.000 population). The average number of home care visits was 1188 visits/10.000 population at national level. The number of home visits was the highest in Fejér (1342), Komárom-Esztergom (1333), Jász-Nagykun-Szolnok (1327), Nőgrád (1310), Győr-Moson-Sopron (1285) counties. The lowest home visit rate was measured in Budapest (1162), Somogy (1142) and Szabolcs-Szatmár-Bereg (614) counties (all are for 10.000 population). **CONCLUSIONS:** We found significant inequalities in the utilization of home care (nursing) in Hungary measured both by the number of patients and the number of visits per 10.000 population.

PHP15

IMPLICATIONS OF LATIN AMERICAN PHARMACEUTICAL PRICING REFORM FOR THE UK NHS

Shankland BDT, Kirpekar S
Double Helix Consulting, London, UK

OBJECTIVES: Mexico and Brazil have well-developed pharmaceutical pricing systems, with an increasing trend towards use of Health Technology Assessment in access decisions. However, there are significant differences in the prices of innovative medicines in the two countries. The object of the study is to clarify to what extent local decision making criteria can account for these discrepancies and therefore which evaluation mechanisms may have international relevance. **METHODS:** Secondary research was carried out to identify prices in Brazil and Mexico for 5 patented oncology medicines. A rating scale was then devised with the following decision domains for pricing and reimbursement: international referencing; cost-plus analysis; economic evaluation and budget impact; innovation; unmet needs; therapeutic referencing; negotiated agreements; demand side controls; and societal benefit. In primary research 4 senior stakeholders in Brazil and Mexico were asked to rate the importance of these domains in access decisions, and provide a rationale. **RESULTS:** Decision criteria in Mexico and Brazil reflect the historical origins of their respective health systems, but recent developments reflect a centralising trend in decision-making in both countries. This suggests that economic evaluation will increasingly determine access in both countries but pricing criteria will remain different, notably due to the greater role of price negotiation in Mexico. **CONCLUSIONS:** The mix of empirical and context-based decision criteria in Brazil and Mexico represent valuable alternative models for other countries, such as the UK National Health Service (NHS), which is currently contemplating a move towards "value-based pricing" for pharmaceuticals. In particular, Mexican and Brazilian evaluation mechanisms may inform future considerations of therapeutic innovation in the UK.

PHP16

WAITING TIME AND ITS IMPLICATIONS ON THE UTILIZATION OF ANTENATAL SERVICES IN A FREE SERVICE PROVISION SETTING IN THE ASANTE AKIM NORTH MUNICIPAL, GHANA

Agyei-Baffour P, Nakua E, Agyemang P, Owusu-Dabo E
Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ashanti, Ghana

OBJECTIVES: The study sought to estimate the waiting time and assess its implications on the utilization of antenatal services in the Asante Akim North Municipal, Ghana. **METHODS:** The study was a cross sectional descriptive type using both qualitative and quantitative methods. In all 200 pregnant women presenting at the Konongo Odumasi Government Hospital and the Agogo Presbyterian Hospital were randomly selected for the study. Structured questionnaires were used to obtain data from respondents. Key informant and household heads interviews were also conducted and used to augment the information obtained. Descriptive and inferential statistics were used in the data analysis; statistical differences were set at 0.05 or less and at 95% confidence interval. **RESULTS:** Of the 200 respondents 35.5% (71) made four visits and 64.5% (129) made one or more visits. Pregnant mothers had to forego GH¢ 31(US$ 22.14) and GH¢ 15(US$10.17) as their incomes whenever they attended ANC. Significant differences existed between national health insurance policy holders and antennal clinic (ANC) visits ($p=0.022$), trimester of pregnancy and ANC visits ($p<0.001$), and place of residence (indicating distance to health facility and ANC visits ($p=0.017$). **CONCLUSIONS:** Long waiting is associated with high opportunity cost and are likely to reduce utilisation of ANC services in a free services provision setting. Further studies on feasibility of creating of separate pharmacy, laboratory and records units for antenatal clinic users and effects of waiting time on service utilization may be helpful to improve utilization of ANC services and reduction in pregnancy related maternal mortality.

Health Care Use & Policy Studies – Formulary Development

PHP17

MEXICO'S NATIONAL AND INSTITUTIONAL ESSENTIAL MEDICINE LISTS

Rivas R
CENETEC, México, D.F., México

BACKGROUND: Essential medicines are those that satisfy the priority health care needs of the population. They are selected with due regard to public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. To be selected, medicines must be available through health systems, in suitable amounts and dosage forms. The Essential Medicines List can help countries rationalize the purchasing and distribution of medicines, thereby reducing costs to the health system. Most countries have national lists and some have provincial, state or institutional lists as well. Mexican Health System has 2 main institutions who provide healthcare services to population: IMSS and ISSSTE; each of them have an institutional list and also there is a National essential medicine list. **OBJECTIVES:** To compare the National essential medicine list with the institutional lists of IMSS and ISSSTE. **METHODS:** The National essential medicine list (2009 version) and the latest web versions available for the essential list of each institution where analyzed to compare by product key and by generic name for each of the 23 therapeutic groups excluding the groups referring to vaccines, nutrimental components and electrolytic solutions. **RESULTS:** There were a wide difference between the national essential list and the institutional list especially in the group for treating endocrinology, oncology and infectius conditions. Also there were big differences for more than 50% of the therapeutic groups examined between the institutions. **CONCLUSIONS:** There remains, significant opportunity for improvement of the national and institutional essential medicines list because don't seem to be uniform criteria to selection.

Health Care Use & Policy Studies – Health Care Costs & Management

PHP18

IMPACTO DE LA PARTICIPACION DEL FARMACEUTICO COMO PARTE DEL EQUIPO DE SALUD EN EL PRIMER NIVEL DE ATENCION SOBRE LOS COSTOS

Mino-Leon D[1], Contreras-Hernandez I[2], Anaya P[3], Reyes A[4]
[1]*Instituto de Geriatría, México, D.F., México,* [2]*Instituto Mexicano del Seguro Social, México, D.F., México,* [3]*GlaxoSmithKline México, México, D.F., México,* [4]*Universidad de la Sierra Sur, Oaxaca, Miahuatlán de Po, México*

OBJECTIVOS: Analizar el ahorro en costos por la intervención del farmacéutico sobre errores de prescripción, desde la perspectiva del proveedor de servicios de salud. **METODOLOGÍAS:** Análisis de costo-efectividad, tipo árbol de decisiones. Se estimaron costos y efectividades de incluir en las decisiones médicas un farmacéutico y corregir prescripciones de antihipertensivos e hipoglucemiantes combinados con analgésicos e hipolipemiantes. La medida de efectividad fue la probabilidad de otorgar prescripciones farmacológicas sin eventos adversos graves (EAG), con horizonte temporal de 30 días. La probabilidad de corrección por la intervención del farmacéutico se obtuvo a través de un ensayo clínico (EC) y la probabilidad de la ocurrencia de EAG (hemorragia gastrointestinal, rabdoimiolisis, enfermedad vascular cerebral y fractura de cadera) como consecuencia de la no corrección se obtuvo de la literatura publicada. Se estimaron los costos de la atención médica con y sin farmacéutico del EC y los costos esperados de los EAG de publicaciones de costos nacionales. Los costos son expresados en pesos mexicanos del 2010. **RESULTADOS:** Costo promedio por paciente esperado sin la intervención del farmacéutico durante el horizonte temporal fue de $12,481.60 y el costo promedio por paciente con la intervención fue de $9,127.97, lo que significó disminución en el costo por paciente de 27%. El número de prescripciones que evitaron interacciones riesgosas fue superior con la presencia del farmacéutico y la posibilidad de que un paciente no presentara alguno de los desenlaces evaluados por efecto de la inter-

vención de manera oportuna aumentó en 11%. El costo por paciente sin EAG de manera habitual fue de $16,981.77 mientras que con la intervención del farmacéutico fue de $11,158.89. La razón costo efectividad incremental demostró que por cada paciente adicional sin EAG el sistema de salud ahorra $40,405.18. **CONCLUSIONES:** La inclusión del farmacéutico en el equipo de atención fue costo-ahorradora.

PHP19

INCREASED MARKET SHARE OF PRIVATE, FOR-PROFIT HEALTH CARE PROVIDERS FROM THE HUNGARIAN HEALTH INSURANCE BUDGET BETWEEN 2006-2009

Boncz I[1], Endrei D[1], Molics B[1], Ágoston I[1], Turcsanyi K[2], Domján P[2], Betlehem J[1], Oláh A[1], Sebestyén A[3]
[1]*University of Pécs, Pécs, Hungary,* [2]*University of Pécs, Zalaegerszeg, Hungary,* [3]*South-Trasdanubian Regional Health Insurance Fund Administration, Pécs, Hungary*

OBJECTIVES: The potential role of private health care providers and privatization has been under heavy discussion in many countries. In the Hungarian health care, there was a clearly supporting health policy regarding the increasing role of private health care providers. The aim of the study is to analyze the market share of for-profit private sector from the public health insurance expenditures on medical services. **METHODS:** Data were derived from the nationwide administrative dataset of the National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary, covering the period 2006-2009. The analysis includes the medical provisions (primary care, health visitors, dental care, out- and inpatient care, home care, kidney dialysis, CT-MRI). We calculated the health insurance reimbursement according to the following categories of health care providers' ownership status: local authorities, central government, for-profit companies and non-profit providers. **RESULTS:** In 2006 only 15.8% (112.8 billion Hungarian Forint, HUF) of total expenditure for medical services went to for-profit private providers, 53.9% to local authorities, 24.7% to central government and 5.6% to non-profit sector. For 2009, the market share of private for-profit health care providers increased to 30.9% (222.3 billion HUF), the local authorities had 43.8%, the central government 22.7% and the non-profit sector 2.5% market share. We found the largest increase of private for-profit health care providers in acute (from 0.8% in 2006 to 14.3 in 2009) and chronic care (from 1.1% in 2006 to 20.6% in 2009). **CONCLUSIONS:** In line with the health policy objectives between 2006-2009, we found a significant increase of private for-profit companies from health insurance financing: they doubled their market share from 15.8% (2006) to 30.9% (2009). This increase was attributed to the "functional" privatization of acute and chronic care hospitals.

PHP20

ECONOMIC EVALUATION OF POISON CONTROL CENTERS: A SYSTEMATIC REVIEW

Galvao TF[1], Silva EN[2], Silva MT[2], Pereira MG[3]
[1]*Federal University of Amazonas, University of Brasilia, Brasilia, DF, Brazil,* [2]*Brazilian Ministry of Health, Brasília, DF, Brazil,* [3]*University of Brasilia, Brasilia, DF, Brazil*

OBJECTIVES: The aim of this review is to systematically summarize and assess the existing economic evaluations of poison control centers (PCCs). **METHODS:** A literature search was performed to identify complete economic evaluations regardless of language or publication status by searching the following databases: Medline (via Pubmed), Embase, Centre for Reviews and Dissemination Databases, Cochrane Library, Cochrane Central, metaRegister of Clinical Trials, LILACS, SciELO, ProQuest, Capes (Brazilian theses register) databases and abstracts at toxicology congresses. Two reviewers assessed abstracts for inclusion and extracted the data. Two experts assessed studies' quality with a standardized tool (Drummond 2005). **RESULTS:** A total of 365 non-duplicated reports were identified, but only nine met eligibility criteria. Five studies were published in the 1990s, and four were published in the following decade. PCCs were compared to a scenario in which they did not exist. Benefits were measured as potentially avoided healthcare charges. Eight studies used cost-benefit analyses, and the other one used a cost-effectiveness approach. Only two studies did not meet at least seven of 10 quality criteria. Cost-benefit ratios ranged from 0.76 to 7.67, what means that each dollar spent on poison centers saves almost US$ 8 in other medical spending. Incremental cost-effectiveness ratios were US$ -12,000 for morbidity and -56,000 for mortality. These results indicate that a significant cost savings is realized with each successful outcome achieved by a poison center: US$ 12,000 in case of morbidity and US$ 56,000 in case of mortality. **CONCLUSIONS:** Investment in PCCs appears to be a rational public health policy. They could improve health care expenditure efficiency and contribute to the sustainability of the health system. However, the number of PCCs is decreasing in many countries.

PHP21

MEDICAL SERVICES COST INFLUENCE ON THE RATIONALITY OF NEW MEDICAL TECHNOLOGY INTRODUCTION

Kozhanova I[1], Romanova I[1], Gavrilenko L[1], Voitenkova L[2]
[1]*The Belarus State Medical University, Minsk, Belarus,* [2]*Belarusian National Technical University, Minsk, Belarus*

OBJECTIVES: To define the value medical services cost while conducting pharmacoeconomic analysis. **METHODS:** A review of pharmacoeconomic researches of 5-alpha reductase inhibitors (5-ARI) application for treatment benign prostatic hyperplasia (BPH) has been conducted. The average prices for medical services for care and treatment of BPH patients have been defined. The prices analysis of the medical services Belarusian market in a "urology" specialty has been made. The average prices comparison (in US dollars) of the actual medical services and prices taken from medical literature has been done. **RESULTS:** The foreign medical literature review of using the 5-ARI for BPH patients shows the considerable economic expenses because of an acute urinary retention hospitalization and surgical treatment necessity. The medical services cost in Belarus is considerably cheaper to compare with the costs given by foreign researchers' reviews. We have specified three procedures giving the significant contribution to the above-stated discrepancies: the urologist examination cost in the USA 9 times exceeds the similar procedure in our country (47,9$ versus 5$), transurethral resection (TURP) performance is 5 times (793$ versus 159$) and 1 day hospitalization cost without operative interventions and anesthesia is 364 times (4809$ versus 13,2$) more. **CONCLUSIONS:** Hospital services and the medical staff work high cost in western countries allows proving economically out-patient application of expensive treatment methods. The end-points choice of the events demanding hospitalizations is not optimum at making pharmacoeconomic researches in Belarus because of the low contribution in hospital expenses versus the drug therapy cost. A complex approach with integration of several economic analyses is required to introduce new expensive innovative drugs on the Belarusian pharmaceutical market.

PHP22

USE OF DECISION MODELING TO ESTIMATE THE NEGATIVE IMPACT OF TOBACCO USE ON HEALTH CARE COSTS AND HEALTH DISPARITIES IN PEOPLE LIVING WITH HIV

Burbano-Levy X, Miguez MJ, Thompson M, Medina A, Quiros C, Malow R
Florida International University, Miami, FL, USA

OBJECTIVES: After people living with HIV (PLWH) start on highly active antiretroviral therapy (HAART), rates of hospitalization for PLWH's declined, but continued still occurred at high levels. The increased prevalence of tobacco use among PLWH and paucity of current data provide the rationale to study if tobacco use might affect cost and clinical benefits of HAART among PLWH. **METHODS:** A decision-tree model guided our assessment of the impact of tobacco on costs and effectiveness of HAART by race/ethnicity. Using a payer perspective, the probabilities related with smoke habit for racial group (African-Americans, Caribbeans, Hispanics, Caucasians) were extracted from our prior tobacco study (n=560) along with the number of hospitalizations. This information along with hospital bed/day costs, provided by Jackson Memorial Hospital's patient accounting system, was used to estimate the impact of the tobacco with a 1-year time frame. Results were express as cost per hospitalizations related to smoking diseases (HRSD) **RESULTS:** Among patients receiving antiretroviral therapy, our data indicated that smoking contributed a $480,029 additional cost/year, with an average of $6,234/HRSD and an incremental cost of $ 4,750 compared to non-smokers in the same treatment group. In the Non-HAART Group, the incremental cost for smokers was $2,064,469, with an average of $8,054/HRSD and an incremental cost of $7,486. When racial group were evaluated for smoking habit, the average costs for Hispanics receiving HAART was $10,975/HRSD. African Americans despite the high cost reported for the total group had an average cost of $8011/HRSD. **CONCLUSIONS:** In PLWH receiving HAART, our analysis indicated that the benefits of HAART were negatively impacted by tobacco use and costs are increased in the smokers in both the HAART and Non-HAART groups. The data also indicated that focusing tobacco prevention efforts on minorities may maximize effectiveness in terms of disease prevention and cost reduction.

PHP23

LA ACEPTACION DE LAS VACUNAS EN LOS PROGRAMAS NACIONALES DE INMUNIZACION EN LATINA AMERICA: UN ESTUDIO COMPARATIVO

Jones K
PriceSpective Ltd., London, UK

OBJECTIVOS: A un con un precio alto, la vacuna de VPH se ha asegura do una rápida inclusión en los programas nacionales de inmunización (PNI) en economías avanzadas y emergentes. Por el contrario, otras vacunas nuevas, han encontrado una aceptación más lenta en economías emergentes. El objetivo de esta investigación es comparar el acceso al mercado de esta vacuna con los de las vacunas contra el neumococo y la del Hib, con el fin de entender los criterios subyacentes en la exitosa aceptación de una vacuna. **METODOLOGÍAS:** Cinco países de Latina América fueron considerados en este estudio. Todos los países participaron en un debate nacional de al menos dos de las vacunas sobre la inclusión en el PNI. Se recopilaron los siguientes datos: fecha de autorización comercial y de inclusión en el PNI, precio, restricciones de acceso y fuentes de financiación. Se llevó a cabo una revisión cualitativa de la literatura y de las publicaciones de los Ministerios de Salud de estos países para hacer un estudio comparativo de las tres vacunas. **RESULTADOS:** Nuestro análisis muestra en todos los países una clara diferencia entre la financiación del VPH y de las otras vacunas, con poca consistencia en el razonamiento económico y político. Por ejemplo, los altos costos se citan como barrera al acceso, sin embargo las poblaciones incluidas en los programas de vacunación del VPN son más grandes que en los países industrializados. **CONCLUSIONES:** Los factores adicionales que influyen en la aceptación de una vacuna varían dependiendo de los actores principales del debate nacional. Políticamente, las voces de los activistas contra el cáncer pueden aumentar la percepción del valor social de una vacuna en particular. Estos factores son muy importantes y van más allá de la evaluación económica del proceso de inclusión de vacunas en los PNIs.

PHP24

COMPARAÇÃO DA QUALIDADE DE VIDA ENTRE PESSOAS COM DOENÇAS CRÓNICAS E PESSOAS DA COMUNIDADE SEM DOENÇA

Pais-Ribeiro J[1], Silva I[2], Pedro L[3], Meneses R[2], Cardoso H[1], Abreu M[1], Melo V[1], Martins A[1], Martins-da Silva A[1], Vilhena E[1], Mendonça D[1]